IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Application of:	Examiner: Samuel A. Dillon
Charles Frank et al.	Art Unit: 2185
Application No: 10/763,099	Confirmation No: 7524
Filed: January 21, 2004	
For: MULTICAST COMMUNICATION PROTOCOLS, SYSTEMS, AND METHODS	

Mail Stop Appeals
Commissioner for Patents
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PRE-APPEAL BRIEF REVIEW REQUEST ACCOMPANYING NOTICE OF APPEAL

This communication is submitted in response to the Final Office Action mailed June 4, 2009 (hereinafter "FOA").

35 USC 102(e) Rejections

In the FOA, claims 17-27, 40, 41, and 43 were rejected under 35 USC 102(e) in light of Wang et al. (US 6,834,326) (hereinafter "Wang"). Applicants traverse these rejections.

In the FOA, the Examiner stated that clauses of claim 17 that follow the "configured to" phrase "fall entirely within the claimed intended use of the claim [and] the claims do not positively recite the controller actually performing the steps."[1] The Examiner went on to state that "Wang is not specifically precluded from performing any of the claimed functionality." The Applicants assert that the Examiner has misconstrued the effect of the "configured to" language used in claim 17 and, as a result, has provided

[1] *FOA*, page 2.

an improper 102(e) rejection of claim 17 in light of Wang.

While it is true that claim 17 does not recite the controller actually performing the steps, as may be recited in a method claim, claim 17 does recite that the controller is actually configured to do the claimed operations. Thus, it is a positive recitation in the body of the claim that the controller is presently capable of performing the claimed operation. Merely alleging that Wang's controller is not precluded from being modified, at some time in the future, to do the claimed operations is insufficient. Rather, a proper 102 rejection requires that a reference teach that the controller **is** configured to do the operation. There has been no allegation that Wang teaches a controller that is actually configured to perform the recited operations. Instead, the FOA simply suggests that Wang may be able to be manipulated or modified in such a way to then carry out the operations.

While the Applicants do not agree with the Examiner's characterization of the "configured to" clauses as being "intended uses," it may be noted that Wang fails to meet these elements even if they were treated as intended use clauses according to MPEP 2106.II.C. This section of the MPEP states that "[i]f the prior art structure is capable of performing the intended use, then it meets the claim." In the present context, as will be described in further detail below, Wang is not "capable of performing the intended use" without further configuration/modification of its controller.

MPEP 2106.II.C also instructs that "intended use" and other clauses should be examined to determine what limiting effect they have on the claim. Thus, identification of an "intended use" clause is merely a precursor to further examination of the limiting effect associated with that clause. If, as in the present case, a recitation of a claim clearly recites that an element is presently configured to perform an operation, it is impermissible to simply label the operation as an "intended use" clause and read it out of the claim for purposes of examination.

Wang clearly fails to teach every element of claim 17 when this claim is properly construed for purposes of examination. The Examiner appears to concede to this conclusion by relying on a secondary reference in a 103 rejection of claim 28, discussed

below, to provide the method recitations that correspond to the various "configured to" clauses of claim 17.

Wang fails to teach a controller configured to provide a root partition, which defines a plurality of characteristics of a redundant array (RA) group, that is on the same storage medium as a RA partition of the RA group. In Wang, and other RAID systems, the RA group (RAG) characteristics will be centrally located in the controller's dedicated storage/memory. The reason for this is due to the central controller's function of determining where the particular information will be stored in the array. Once the controller determines where the information will be stored in the array, it sends the information to the appropriate disk.

Wang also fails to teach a controller configured to determine that a data access command pertains to the RA partition based on the plurality of characteristics defined in the root partition. Figure 6 and column 8, lines 56-63 of Wang describes a 1st level RAID controller and a 2nd level RAID controller. The 2nd level RAID controller is seen as a disk (i.e., volume 2) from the perspective of the 1st level RAID controller. The 1st level RAID controller has RAG characteristics that define a 1st RAID scheme (i.e., the interrelationship between disk 0, volume 1, and volume 2); while the 2nd level RAID controller has RAG characteristics that define a 2nd RAID scheme (i.e., the interrelationship between volume 3 and 4). When the 2nd level RAID controller receives a data access command, it does not determine that the access command pertains to volume 2 based on the RAG characteristics that define the 2nd RAID scheme. On the contrary, the 1st level controller has already determined that the data access command pertains to the volume 2 due to the RAG characteristics that define the 1st RAID scheme. Thus, the multi-level RAID controller system of Wang has the same central control and command distribution processes as a single-level RAID controller. For at least these reasons, no controller in Wang can be said to "determine the data access command pertains to the RA partition based at least in part on the plurality of [RAG] characteristics" defined in the root partition of the same storage medium as the RA partition.

Claims 18-27 depend from claim 17 and are patentable for at least the reasons

provided above.

Claim 40 recites that the controller is configured "to transmit ... a first partition command to establish a root partition on a storage medium ... to transmit a [RAG] characteristics [and] to transmit ... a second partition command to establish a RA partition ... on the storage medium."

As described above, Wang fails to teach a root partition and an RA partition on the same storage medium. Therefore, claim 40 is patentable over Wang for at least these reasons. Claims 41 and 43 depend from claim 40 and are patentable over Wang for at least similar reasons.

35 USC 103(a) Rejections

In the FOA, claims 28, 30-39, and 44 were rejected under 35 USC 103(a) in light of Wang and Fye (US 5,983,024) (hereinafter "Fye"). Applicants traverse these rejections.

In the FOA, the Examiner stated that, for these rejections, Wang is not relied upon to disclose the root partition having the RAG characteristics or determining that the data access command pertains to the RA partition based on the RAG characteristics. The Examiner introduced Fye to provide these elements.

It is improper to combine the teachings of Wang with Fye in the asserted manner. Wang, relates to RAID controllers/switches distributing information among network-attached storage (NAS) systems.[2] Fye, on the other hand, describes a computer sending information over a computer bus, i.e., a peripheral component interconnect (PCI) bus.[3] In Fye, access to the shared, hardwired PCI bus is arbitrated among a number of different PCI agents physically coupled to the PCI bus. A person of ordinary skill in the art would not find teachings related to PCI bus arbitration/access at all relevant to teachings related to routing packets over a network.

Furthermore, even if the teachings of Wang and Fye were properly combined, which the Applicants dispute, they still fail to teach providing a root partition with the

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[2] See, e.g., *Wang*, column 2, lines24-26.

[3] See, e.g., *Fye*, abstract.

RAG characteristics on the storage medium. In the FOA, this element is alleged to be taught by Figure 2 of Fye. Figure 2 "illustrates a target's configuration space header..."[4] The header is not a root partition, nor does it include RAG characteristics as these elements would be interpreted by a person of ordinary skill in the art.

Fye's header includes a base address and one or more alternate base addresses, which may have "a physical address associated with the data broadcast."[5] So, at best, such an alternate address may be characterized as a multicast address. However, a multicast address is not a characteristic "of a redundant array group that includes a plurality of redundant array partitions" for at least the reason that the target agents are not "redundant array partitions." Simply sending the same communication to two different target agents does not make the two different target agents partitions of a redundant array.

Claims 30-39 and 44 depend from, or include elements similar to, claim 28. Accordingly, these claims are patentable for at least similar reasons.

Conclusion

In view of the foregoing, Applicant respectfully request the Examiner's rejections be reversed, and all pending claims 17-28, 30-41, 43, and 44 be allowed.

The proper appeal fees are enclosed. If any further fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C. No. 50-0393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

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[4] Fye, column 3, lines 53-54.
[5] *Id*, column 3, lines 35-37.